

# INVASIVE SPECIES FACT SHEET

## Musk thistle, nodding thistle (*Carduus nutans*)

**Description:** Musk thistle, a member of the Aster family (Asteraceae), is a large biennial herb with multiple branches that grow 1.5 to 6 feet tall. Alternate leaves are dark green, elliptic to lanceolate, and coarsely lobed with a smooth waxy surface and light green midrib. Each leaf lobe ends with a prominent spine. Leaves are 2 to 5 inches long and 0.5 to 1.5 inches wide.

The terminal flowers are 1.5 to 3.5 inches wide, solitary, and usually nodding or slightly bent over. The disc-shaped flowers are purple and have spiny outer bracts. Each plant produces thousands of yellowish-brown seeds that are wind-dispersed. Seeds may remain viable in the soil for over ten years.

Musk thistle seedlings emerge their first year in mid to late July and develop into a rosette of spiny leaves up to 4 feet in diameter. Plants overwinter in the rosette stage and begin to bolt in mid-March. Flowers bloom in early May to August and disseminate seeds approximately one month after flowers form.



photo by: Dan Tenaglia

**Habitat:** Musk thistle competes well in disturbed areas with plenty of light and water. Pastureland is a favorite habitat because of the open landscape, good drainage, and frequent disturbance from livestock. It can grow from sea level to 8000 feet in elevation in neutral or acidic soil.

It is commonly found growing in natural areas that have had intense disturbances such as landslides or in open spaces following prescribed burns. Musk thistle is commonly found growing in pastures, roadsides, waste areas, and ditches.

**Distribution:** Musk thistle has been documented in all lower 48 states of the U.S. except for Florida, Vermont, and Maine. In Kentucky it is found throughout the north, central, and western portions of the commonwealth.

**Threat:** Musk thistle is not considered a serious threat to high quality natural areas, however open areas where disturbance is common are susceptible to colonization. Musk thistle has been known to invade restored prairies with dense, native prairie vegetation.

**Control:** For small populations, hand pulling is the most effective control technique. Hand pulling is best done before the seeds develop or when plants are in the rosette stage. Flowers or seed heads should be bagged and disposed of to prevent seed dispersal. Be sure to wear heavy leather gloves!



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